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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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JUL 15 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)

Amendment of the Commission's Rules to)
Provide for Unlicensed NII/SUPERNet)
Operations in the 5 GHz Frequency Range)

ET Docket No. 96-102

RM-8648

RM-8653

COMMENTS OF AIRTOUCH COMMUNICATIONS

I. Introduction

AirTouch Communications, Inc. ("AirTouch") hereby comments on the notice of proposed rulemaking addressing an allocation of spectrum for short-range high speed wireless digital communications.^{1/} AirTouch supports the goals of the Commission in allocating spectrum in an effort to promote the emergence of new services, enhanced efficiency, and expanded manufacturing opportunities. Nevertheless, AirTouch urges the Commission to ensure that the proposed new services will be compatible with the mobile satellite service ("MSS") feeder links that will be operating in some portions of the band proposed for allocation to these new unlicensed services. Through careful consideration of both the MSS feeder link service and the proposed unlicensed services, the Commission can

^{1/} Amendment of the Commission's Rules to Provide for Unlicensed NII/SUPERNet Operations in the 5 GHz Frequency Range, FCC 96-193, released May 6, 1996 (hereafter cited as "Notice").

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allow the public to realize the manifold benefits of low-Earth orbit ("LEO") satellite services without sacrificing the potential benefits of the NII/SUPERNet service.^{2/}

AirTouch is one of the world's leading providers of mobile services through cellular and other terrestrial wireless systems. In addition, AirTouch is a limited partner in GLOBALSTAR, L.P., the entity formed to obtain investment in and coordinate international service for the GLOBALSTAR LEO mobile satellite system to be operated by Loral/QUALCOMM Partnership, L.P. AirTouch intends to provide LEO mobile satellite services through GLOBALSTAR in several countries around the world, including the United States, and thus is very interested in the *Notice's* proposal to allocate spectrum for the NII/SUPERNet services in the lower portion of the 5 GHz band (5.15-5.35 GHz). GLOBALSTAR will be operating its feeder links in that same portion of the 5 GHz band.^{3/}

II. GLOBALSTAR Is Now Poised for Deployment, With Feeder Link Licensing the Only Remaining Regulatory Step

The "Big LEO"^{4/} satellite proceedings were formally initiated at the Commission when Motorola submitted its initial application for the Iridium satellite system in

^{2/} The *Notice* combined the acronyms for the new service proposal of WINForum (Shared Unlicensed Personal Radio Network -- "SUPERNet"), and the similar proposal of Apple (the National Information Infrastructure -- "NII" Band).

^{3/} GLOBALSTAR intends to operate its Earth-to-space feeder links in the 5091-5250 MHz band. GLOBALSTAR has petitioned the Commission to assign it this spectrum for its feeder link operations. File Nos. 88-SAT-WAIV-96, 90-SAT-ML-96, Public Notice, Report No. SPB-40, released March 20, 1996.

^{4/} The Commission and the International Telecommunications Union ("ITU") distinguish between the LEO satellite services that will operate below 1 GHz and do not provide voice service ("Little LEOs"), and the LEO satellite services that will be operating above 1 GHz and that will provide voice services ("Big LEOs"). GLOBALSTAR falls into this latter category.

1990. The GLOBALSTAR application was submitted shortly thereafter when the Commission established a cut-off for applications to be considered concurrently with the Iridium proposal. Significant efforts have been undertaken to bring these proposals to fruition. GLOBALSTAR and AirTouch have actively participated in those efforts.

A number of regulatory and commercial goals have been accomplished by the Big LEO proponents since 1990. On the domestic regulatory front, spectrum was allocated, service rules were developed following a negotiated rulemaking proceeding,^{5/} and licenses were awarded to GLOBALSTAR and others.^{6/} Thus, the domestic framework for Big LEO services has been largely settled.

Likewise, many of the requisite international regulatory obstacles have been overcome. At the urging of the United States, and with the concurrence of the rest of the nations of the world, the 1992 World Administrative Radiocommunications Conference ("WARC-92") adopted many of the regulatory requirements that were necessary preconditions to worldwide deployment of Big LEOs. In addition, the 1995 World Radiocommunications Conference ("WRC-95") allocated spectrum for feeder links for the Big LEOs, including portions of the 5 GHz band currently being considered for the NII/SUPERNet. AirTouch and GLOBALSTAR participated actively in the preparatory activities for those conferences both here and abroad, and also worked with the U.S. government at the conferences to foster the adoption of the U.S. positions.

^{5/} Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Band, 9 FCC Rcd 5936 (1994), order on reconsideration, FCC 96-54, released February 15, 1996.

^{6/} Loral Qualcomm Partnership, 10 FCC Rcd 2333 (1995); Motorola Satellite Communications, Inc., 10 FCC Rcd 2268 (1995); TRW, Inc., 10 FCC Rcd 2263 (1995).

GLOBALSTAR and AirTouch have also been active in efforts to obtain from individual countries the necessary regulatory approvals to offer GLOBALSTAR's services within that country. GLOBALSTAR and AirTouch are thus working closely with the local licensees, the governments and the PTTs to acquire the requisite authority. To date, GLOBALSTAR has obtained operating agreements in 92 countries.

GLOBALSTAR has also accomplished or largely completed many of the commercial undertakings necessary to ensure the timely deployment of its services. GLOBALSTAR has entered into agreements with numerous partners and investors, and has successfully raised the funds necessary to construct, launch and operate its Big LEO satellite system. GLOBALSTAR has commenced construction of its satellites, secured launch contracts, and is well on its way to completion of the design work on its gateways and mobile transceivers.

As a result of all of these significant activities, GLOBALSTAR will be prepared to launch its first satellites by mid-1997, and to begin commercial service following the launch of the full constellation shortly thereafter. GLOBALSTAR is therefore very close to deployment of its system, well ahead of the six-year period permitted by the Commission.^{2/}

^{2/} Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Band, 9 FCC Rcd 5936, 6008 (1994). Cf., Loral Qualcomm Partnership, 10 FCC Rcd 2333 (1995) at n. 24 (indicating that construction milestones will only be set after the feeder link spectrum is assigned).

III. MSS Feeder Link Operations in the 5 GHz Band

The issue of feeder links for the Big LEOs is largely (but not completely) resolved. The Commission, in issuing licenses to the Big LEOs in early 1995, only conditionally licensed the feeder links due to the need for a global allocation of spectrum for LEO MSS feeder links.^{8/} The Commission did this in anticipation of obtaining these global allocations at WRC-95. Indeed, this issue had been put on the agenda for the WRC-95 meetings at WARC-92.

In a decision reflecting a worldwide agreement on the benefits of Big LEOs, WRC-95 allocated spectrum for LEO MSS feeder links, including specifically the 5091-5250 MHz band.^{9/} The decision at WRC-95 to allocate spectrum for LEO MSS feeder links followed many years of studies and other preparatory activities. The Commission should not make a decision in this proceeding that would jeopardize the deployment of LEO mobile satellite services.

Numerous benefits will accrue from ensuring that the LEO MSS feeder links can operate in this band free from harmful interference caused by the NII/SUPERNet devices. Without reliable feeder links, the LEO MSS systems would be unable to operate. With the successful deployment of LEO MSS systems (including feeder links), customers in

^{8/} Loral Qualcomm Partnership, 10 FCC Rcd 2333 (1995) at ¶ 27. GLOBALSTAR now has formally petitioned the Commission to assign it spectrum at the 5091-5250 MHz and 6875-1055 MHz bands for its feeder link operations. File Nos. 88-SAT-WAIV-96, 90-SAT-ML-96, Public Notice, Report No. SPB-40, released March 20, 1996.

^{9/} At WRC-95, new footnotes (S5.444A and S5.447A) were added to the international table of frequency allocations. Those new footnotes authorize the use of the 5091-5250 MHz band for MSS feeder links in the Earth-to-space direction. WRC-95 additionally allocated spectrum in the 7 GHz, 15 GHz, 19 GHz and 28 GHz bands for LEO MSS feeder links.

the United States (and in the rest of the world) will be able to enjoy the manifold benefits made possible by the GLOBALSTAR satellite system.^{10/}

The LEO MSS systems will be able to provide valuable services to underserved markets throughout the world. In many instances, such LEO MSS offerings will provide the only link between the remote or underdeveloped areas and the rest of the world. In these circumstances, GLOBALSTAR will become that area's telecommunications infrastructure and link to the global information infrastructure.

In addition, within the United States, LEO MSS systems can economically provide ubiquitous service and thereby meet demand in markets where terrestrial services would be uneconomical and thus unavailable. As a result, businesses can operate more efficiently, jobs will be created, export opportunities will develop, and critical communications needs can be fulfilled. Moreover, because the LEO MSS industry was developed by U.S. companies, there will be tremendous manufacturing and export opportunities flowing from the development, construction and operation of the satellites, gateways and handsets that comprise the LEO MSS systems.

The Commission recognized these many benefits made possible by LEO MSS systems in adopting rules and allocating spectrum for the Big LEOs.^{11/} Likewise, the rest

^{10/} Operation of the satellites in low-Earth orbit requires a constellation of satellites to provide service availability because of the movement of the satellites relative to the surface of the Earth. One major benefit of this characteristic is that once the satellite constellation is launched to provide service in the United States, those same satellites will be able to provide service throughout the world with only a small incremental investment in gateway earth stations. Conversely, without the ability to operate in the United States (because of an absence of suitable feeder link spectrum), it is not clear that an LEO MSS operator would launch its constellation of spacecraft.

^{11/} E.g., Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency

of the Administrations around the world perceived the many benefits of LEO MSS at WARC-92 and WRC-95 when they adopted global allocations for these new services and the accompanying feeder link allocations. The Commission can help ensure the successful attainment of these benefits by adopting requirements in this proceeding that will protect the integrity of the LEO MSS feeder links operating in the lower portion of the 5 GHz band.

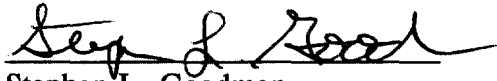
IV. Conclusion

The Commission should not make any decisions in this proceeding that would jeopardize the deployment of LEO mobile satellite services. Ensuring adequate protection of the LEO MSS feeder links would preserve the hard-won goals achieved at WRC-95, and would also avoid the damage to the U.S. integrity that could result if the Commission

Band, 9 FCC Rcd 5936, 5940-41 (1994).

adopted a position here that was inconsistent with the U.S. policies strenuously advanced at
WRC-95.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen L. Goodman", written over a horizontal line.

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Dated: July 15, 1996